

IN THE CLAIMS

1. (currently amended) A method of screening for agents that may be useful in the treatment of a disease selected from hematological diseases, cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases, COPD, asthma, and genitouriological disorders in a human comprising the steps of:

- i) contacting a test compound with a human NPFF1 polypeptide *in vitro*,
- ii) detecting binding of said test compound to said NPFF1 polypeptide, and
- iii) measuring the effect of the test compound on a symptom of the disease in an *in vivo* assay ~~identifying a test compound that binds to said NPFF1 as an agent that may be useful in the treatment of the disease.~~

2. (currently amended) A method of screening for agents that may be useful in the treatment of a disease selected from hematological diseases, cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases, COPD, asthma, and genitouriological disorders in a human comprising the steps of:

- i) determining the activity of a human NPFF1 polypeptide at a certain concentration of a test compound or in the absence of said test compound *in vitro*,
- ii) determining the activity of said polypeptide at a different concentration of said test compound, and
- iii) measuring the effect of the test compound on a symptom of the disease in an *in vivo* assay ~~identifying a test compound as a potential therapeutic agent useful in the treatment of the disease~~ if the activity of the NPFF1 polypeptide in the presence of the test compound is different than the activity of the NPFF1 polypeptide in the absence of the test compound,

wherein the activity of the polypeptide results in an alteration of intracellular calcium concentration or alteration of inositol phosphate concentration.

3. (currently amended) A method of screening for agents that may be useful in the treatment of a disease selected from hematological diseases, cardiovascular diseases, disorders of the peripheral and central nervous system, respiratory diseases, COPD, asthma, and genitouriological disorders in a human comprising the steps of:

i) determining the activity of a human NPFF1 polypeptide at a certain concentration of a test compound *in vitro*,

ii) determining the activity of a human NPFF1 polypeptide in the presence of a compound known to be a regulator of a NPFF1 polypeptide, and

iii) measuring the effect of the test compound on a symptom of the disease in an *in vivo* assay ~~identifying a test compound as a potential therapeutic agent useful in the treatment of the disease~~ if the activity of the NPFF1 polypeptide in the presence of the compound known to be a regulator of a NPFF1 polypeptide is similar to than the activity of the NPFF1 polypeptide at the certain concentration of the test compound, wherein the activity of the polypeptide results in an alteration of intracellular calcium concentration or alteration of inositol phosphate concentration.

4. (previously presented) The method of claim 1, wherein the step of contacting is at the surface of a cell.

5. (canceled)

6. (previously presented) The method of claim 1, wherein the step of contacting is in a cell-free system.

7. (previously presented) The method of claim 1, wherein the polypeptide is coupled to a detectable label.

8. (previously presented) The method of claim 1, wherein the compound is coupled to a detectable label.

9. (previously presented) The method of claim 1, wherein the test compound displaces a ligand which is first bound to the polypeptide.

10. (previously presented) The method of claim 1, wherein the polypeptide is attached to a solid support.

11. (previously presented) The method of claim 1, wherein the compound is attached to a solid support.

12-27. (canceled)

28. (previously presented) The method of claim 2, wherein the polypeptide is coupled to a detectable label.

29. (canceled)

30. (previously presented) The method of claim 3, wherein the polypeptide is coupled to a detectable label.